Serial Number: 09/992,244 Filing Date: November 14, 2001

Title: POWER SUPPLY METHOD AND APPARATUS

Assignee: Intel Corporation

REMARKS

This communication responds to the Office Action mailed on December 8, 2004. Claim 10 is amended, no claims are canceled, and no claims are added. As a result, claims 1-26 are now pending in this Application.

Drawings

An objection was raised to the drawings under 37 CFR § 1.83(a), as not showing every feature of the invention specified in the claims. More particularly, the Office requested that "the socket as per claim 6 must be shown ...". It is respectfully noted that the text of the Application states at pg. 3, lines 15-19, with respect to FIG. 2:

"... power may be supplied to a circuit element 215, which may be a CPU, a microprocessor, a memory, an integrated circuit, or indeed, any circuit which uses electrical power, or which delivers electrical power, *such as a socket*, or socket pins, or a combination of circuitry and sockets, such as a microprocessor mounted in a socket."

Thus, the circuit element 215 may comprise a socket, which is in accordance with the language of claim 6 (i.e., "wherein the circuit element is a socket"). Thus, it is believed that FIG. 2, which includes multiple instances of element 215, already satisfies the requirements of 37 CFR § 1.83(a). Therefore, no amendment to the drawings should be necessary. Formal drawings are supplied herewith.

§112 Rejection of the Claims

Claim 10 was rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. This claim has been amended to clarify that "the first portion of the plurality of power connection terminals is equal <u>in number</u> to the first portion of the plurality of return connection terminals, and ... the second portion of the plurality of power connection terminals is

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equal <u>in number</u> to the second portion of the plurality of return connection terminals", as shown in FIG. 2. This amendment, which has been made to clarify the meaning of the claim, and not for reasons related to patentability, is believed to fully address the concerns expressed in the Office Action. Therefore, reconsideration and withdrawal of this rejection under 35 USC § 112 is respectfully requested.

§102 Rejection of the Claims

Claims 1-5, 7-12, and 14-25 were rejected under 35 USC § 102(e) as being anticipated by Pohlman et al. No patent number was specified in the Office Action.

The Applicant believes that "Pohlman et al." refers to U.S. Patent Number 6,819,537, since the numeric labels cited in the Office Action are in accordance with this reference, and not with those contained in another reference listed in the Office Action, namely, U.S. Patent Number 6,429,630, also issued to Pohlman et al. Therefore, the Applicant will assume that all references to "Pohlman et al." in the Office Action refer to U.S. Patent Number 6,819,537; hereinafter "Pohlman." Because the Applicant asserts the Office has not shown that Pohlman is a valid reference, and that Pohlman discloses the identical invention as claimed, the Applicant respectfully traverses this rejection of the claims.

First, it is respectfully noted that Pohlman has a filing date of March 22, 2002, which is later than the filing date of the instant Application. Among other documents, Pohlman claims priority from a provisional application dated December 26, 2001, which is also later than the filing date of the instant Application. Thus, at this time, there is no evidence in the record that the teachings of Pohlman relied upon in the Office Action to reject claims 1-5, 7-12, and 14-25 under 35 USC § 102(e) are based upon a valid priority document. Therefore, if no Notice of Allowance is issued by the Office in reply to this Response, the Applicant respectfully requests that copies of all priority documents for Pohlman be supplied by the Examiner in conjunction with any subsequent Office Action. These documents include: U.S. Provisional Application Ser. No. 60/277,839; U.S. Provisional Application Ser. No. 60/343,941; and U.S. Application Ser. No. 09/771,756. The Applicant appreciates the Examiner's effort in this regard.

Second, it is respectfully noted that anticipation under 35 USC § 102 requires the disclosure in a single prior art reference of each element of the claim under consideration. See

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Verdegaal Bros. V. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). It is not enough, however, that the prior art reference discloses all the claimed elements in isolation. Rather, "[a]nticipation requires the presence in a single prior reference disclosure of each and every element of the claimed invention, arranged as in the claim."

Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing Connell v. Sears, Roebuck & Co., 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added). "The identical invention must be shown in as complete detail as is contained in the ... claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989); MPEP § 2131 (emphasis added).

Regarding claims 1, 11, 17, and 21 (and claims 2-10, 12-16, 18-20, and 22-26 depending from them), it is respectfully noted that Pohlman does not teach "a circuit element having ... a plurality of return connection terminals, wherein ... a first portion of the plurality of return connection terminals are connected to the first output, and wherein ... a second portion of the plurality of return connection terminals are connected to the second output." This is admitted in the Office Action, where it is noted that the pluralities of return terminals are "... not shown but must exist as electrically coupled ground potential paths ...". Office Action, Pg. 4, Para. 8.

This assertion is apparently based on the idea that the claimed pluralities of return terminals are inherent in the apparatus described by Pohlman. However, it is respectfully noted that that no *prima facie* case of inherency has been established because, as recited in MPEP § 2112, "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." citing *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original). "The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish inherency of that result or characteristic." citing *In re Rijckaert*, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art).

Indeed, Pohlman's use of a common ground terminal for capacitors 320, 322, 324, and 326, shown in FIG. 3, suggests the use of a common return terminal for all voltage sources 302,

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304, 306, and 308. Therefore the use of the pluralities of return terminals claimed by the Applicants is not inherent in the teachings of Pohlman.

Since Pohlman does not teach that "a first portion of the plurality of return connection terminals are connected to the first output" and that "a second portion of the plurality of return connection terminals are connected to the second output," what is disclosed by Pohlman is not identical to the subject matter of the embodiments claimed, and therefore, the rejection of claims 1-5, 7-12, and 14-25 under § 102 is improper. Reconsideration and allowance are respectfully requested.

§103 Rejection of the Claims

Claims 6, 13 and 26 were rejected under 35 USC § 103(a) as being unpatentable over Pohlman in view of "Applicant's Admitted Prior Art (AAPA)." First, the Applicant does not admit that Pohlman or APA are prior art, and reserve the right to swear behind these references in the future. Second, since a *prima facia* case of obviousness has not been established, the Applicant respectfully traverses this rejection.

The Examiner has the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 1074, 5 U.S.P.Q.2d (BNA) 1596, 1598 (Fed. Cir. 1988). The M.P.E.P. contains explicit direction to the Examiner that agrees with the *In re Fine* court:

In order for the Examiner to establish a *prima facie* case of obviousness, three base criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *M.P.E.P.* § 2142 (citing *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d (BNA) 1438 (Fed. Cir. 1991)).

The requirement of a suggestion or motivation to combine references in a *prima facie* case of obviousness is emphasized in the Federal Circuit opinion, *In re Sang Su Lee*, 277 F.3d 1338; 61 U.S.P.Q.2D 1430 (Fed. Cir. 2002), which indicates that the motivation must be supported by evidence in the record.

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No proper *prima facie* case of obviousness has been established because (1) combining the references does not teach all of the limitations set forth in the claims, (2) there is no motivation to combine the references, and (3) combining the references provides no reasonable expectation of success. Each of these points will be explained in detail, as follows.

Combining References Does Not Teach All Limitations: First, with respect to independent claims 1, 11, and 21, no combination suggested in the Office Action will render all of the claim limitations. It is admitted by the Office that Pohlman does not disclose the pluralities of return connection terminals claimed by the Applicant. Neither does AAPA. Thus, independent claims 1, 11, and 21 are nonobvious. This conclusion applies with even greater force respecting dependent claims 6, 13, and 26, since any claim depending from a nonobvious independent claim is also nonobvious. See M.P.E.P. § 2143.03.

No Motivation to Combine References: The Office asserts that one would be motivated to combine Pohlman and AAPA "to modify the power supply system of Pohlman to use a socket as the circuit element in order to attach the microprocessor to the printed circuit board." However, this assertion does not provide the motivation to supply the pluralities of return connection terminals claimed by the Applicant.

In fact, Pohlman teaches away from the suggested combination (e.g., Pohlman makes use of a common ground terminal for all capacitors, instead of multiple return terminals). Thus, the use of this unsupported assertion in the Office Action does not satisfy the explicit requirements needed to demonstrate motivation as set forth by the *In re Sang Su Lee* court. Therefore, the Examiner appears to be using personal knowledge, and is respectfully requested to submit an affidavit as required by 37 C.F.R. § 1.104(d)(2).

No Reasonable Expectation of Success: As previously noted, modifying Pohlman to implement a socketed microprocessor will not provide the pluralities of return connection terminals claimed by the Applicant.

The test for obviousness under § 103 must take into consideration the invention as a whole; that is, one must consider the particular problem solved by the combination of elements that define the invention. *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 U.S.P.Q. 543, 551 (Fed. Cir. 1985). References must be considered in their entirety, including parts that teach away from the claims. See MPEP § 2141.02. The fact that references can be

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combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 16 USPQ2d 1430 (Fed. Cir. 1990); M.P.E.P. § 2143.01.

Therefore, since there is no evidence in the record to support disclosure by either Pohlman or AAPA of the pluralities of return connection terminals claimed by the Applicant, since there is no motivation to supply the missing elements (since Pohlman teaches away from such a combination), and since no reasonable expectation of success arises, a *prima facie* case of obviousness has not been established with respect to independent claims 1, 11, and 21. This conclusion also applies to dependent claims 6, 13, and 26, since any claim depending from a nonobvious independent claim is also nonobvious. It is therefore respectfully requested that the rejection of claims 6, 13, and 26 under 35 U.S.C. § 103 be reconsidered and withdrawn.

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CONCLUSION

The Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. As noted above, if the Examiner is not convinced that all of the pending claims are in condition for allowance after reviewing this document, the courtesy of an Examiner's Interview is respectfully requested prior to preparing and mailing any Final Office Action.

The Examiner is invited to telephone the Applicant's attorney, Mark Muller at (210) 308-5677, or the Applicant's below-named attorney at (612) 349-9592 to facilitate prosecution of this Application. If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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By their Representatives,

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IN THE DRAWINGS

Formal drawings are supplied herewith.